Migrant and non-migrant fertility in Greece: Results based on the 2001 population census

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Abstract

This paper examines fertility patterns and differentials between migrant and non-migrant women in Greece using data from the 2001 census on the reported numbers of children ever-born alive by citizenship. Special tabulations produced by the National Statistical Service of Greece are analysed and presented here. The analysis focuses on Greek, Albanian and Bulgarian women born over 1950-1970. Noticeable differences are observed. Despite the fact that Bulgarian women tend to have their first births earlier, their fertility levels are the lowest. Albanian women exhibit the highest fertility while levels for native women are somewhere in between. Nevertheless, the gap observed among the ethnic groups tends, broadly, to narrow over successive cohorts.

Keywords: migrant fertility; Greek census data; children ever born; Albanians; Bulgarians

1. Introduction

Since the early 1990s Greece has experienced a considerable amount of immigration as a result of significant socio-political events, such as the collapse of the former USSR, the shift of the Albanian regime and the liberalization of the economies of the Eastern European countries. Although

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moderate migration inflows have been observed since the 1970s (Psimmenos, 1997; Psimmenos and Geourgoulas, 2001) the transformation of Greece from a traditional emigration to an immigration country constitutes a new phenomenon. The 2001 population census recorded 762,191 foreign citizens living in the country, representing 7% of the total population of Greece. It has been estimated that over 97% of population change in the intercensal period 1991-2001 is attributable to net immigration (Tsimbos, 2006).

Official statistics reveal that immigrants in Greece exhibit a young age structure – their median age (29.7) is about ten years lower than that of the native population (39.5) – and a relatively high percentage of males (55% compared to 49% respectively). The composition of migrants by citizenship delineates a special characteristic of Greece, in that the main bulk of migrants originate from a single sender, namely Albania (57.5%). The former USSR (10%) and the other Balkan countries (8%) – Bulgaria, Romania, and former Yugoslavia – are also important source countries; in particular, Bulgarians (4.6%) constitute the second most numerous ethnic group (NSSG, 2003). Migrants tend to concentrate in Greater Athens and the surrounding areas (49%) as well as other urban areas or regions with high demand for labour; however, different migrant groups exhibit different patterns of regional distribution with Philippinos being the most concentrated and the Albanians the most dispersed nationalities across the country (Rovolis and Tragaki, 2006). The differentiation in the socio-economic characteristics of migrants between urban and rural areas of settlement does not seem to be significant (Iosifides et al., 2006).

The study of migrant childbearing and its contribution to the overall fertility is a matter of great interest, particularly as Greece constitutes a very low fertility receiving country where population dynamics and demographic policy are matters of great concern. Obviously, the various aspects of migrant reproduction have important implications not only from the demographic point of view (population change and structure) but also from the social perspective (child and

maternal health, social insurance benefits, educational needs and schemes, etc).

Migrant fertility is a sparsely studied topic in Greece; this paper presents for the first time differentials in levels and patterns among native and non-native women with particular reference to the two most numerous ethnic groups, Albanians and Bulgarians. In the absence of vital registration data by citizenship up to now, the only available material on migrant fertility comes from the retrospective statistical information derived from the 2001 population census. The paper is organized as follows. Section 2 deals with the methods and data used in the analysis. In section 3 the results of our study are presented. Finally, in section 4 the main findings are summarized and some conclusions are drawn.

2. Data and methods

On the occasion of the last population census (2001), the Greek statistical authorities made an unprecedented effort to record the non-native population living in the country. In spite of the evidence that a significant number of immigrants remains unrecorded (Lazaridis, 1996; Lazaridis and Poyago-Theotoky, 1999; Lianos, 2001; Fakiolas, 2003, Baldwin-Edwards, 2004), the 2001 population census constitutes a clear improvement in data collection on migrant stocks compared to previous enumerations.

As already mentioned, the census is the only source providing retrospective information on migrant childbearing. Our study is based on the reported number of children ever born alive by women at the time of the 2001 census of Greece. This question was addressed to all women aged 15 and over and was received without hesitancy by the respondents. Special emphasis is given to the two most numerous ethic groups in the country, namely Albanians and Bulgarians.

The existing official records for Greece (administrative and statistical) referring to the foreign population of the country are based on the notion of "citizenship" of the individuals. In this paper we also adopt the concept of citizen-

ship to identify the migrant population. For the purposes of the study, special tabulations of census data were produced by the National Statistical Service of Greece. The data are cross-classified by age and citizenship of mother, numbers of children ever born alive and date of first birth. Since the census took place in March, data on births occurring in 2001 are not included.

The available statistical information makes it possible to conduct a cohort analysis of fertility by citizenship. The analysis focuses on both the changing tempo and quantum of fertility. We observe differences in fertility levels and patterns across national groups and over successive cohorts. Fertility is analysed with respect to the proportions childless, the postponement of childbearing as well as changes in family size. As intensive immigration is a recent phenomenon for Greece only first generation migrants are examined. 47% of the Albanian and 60% of the Bulgarian women report (at census time) that they have been resident in Greece for 1-5 years. As a result, the cohort fertility rates presented in the paper in effect reflect only partly the experience of immigrant women in this country and, possibly to a greater extend, their fertility experience in their countries of origin.

3. Results
3.1 Cohort fertility differentials between ethnic groups
Estimates of cohort fertility in this paper are based on the numbers of children ever born by women in the 1950 to 1969 cohorts for the citizenships under consideration. For the purposes of the analysis these women have been classified in five-year cohort groups. The majority of these women have not yet completed their reproductive life by the end of 2000. In fact, only those born before 1955 who are aged 45 or more at the time of the census, have more or less completed their fertility. Women born later, for instance in the late 1960s, are only aged 35 or less in 2000 and their experience is censored by the census.

Comparing women born in the first and the second half of the 1950s, who are at least aged 40 at census, a slight decline

in the fertility of Greeks and Bulgarians, around 2%, can be observed, which may be related to a tempo effect (Table 1).

Table 1. Number of women, mean number of children ever born and mean age at first birth by citizenship: birth cohorts 1950-1969

|	Number of women		
Birth cohort	Greek	Albanian	Bulgarian
1950-54	320,474	8,262	2,707
1955-59	339,826	12,516	2,883
1960-64	340,325	16,706	2,609
1965-69	355,704	19,317	2,780
	Mean number of children		
Birth cohort	Greek	Albanian	Bulgarian
1950-54	1.93	2.42	1.64
1955-59	1.88	2.21	1.61
1960-64	1.76	1.94	1.44
1965-69	1.39	1.64	1.19
	Mean age at first birth[a]		
Birth cohort	Greek	Albanian	Bulgarian
1950-54	23.7	23.2	21.4
1955-59	23.3	23.7	20.9
1960-64	23.6	24.0	20.9

[a] refers to first births achieved by age 35
Source: Calculations based on the 2001 census of Greece

By contrast, a sharp decline of about 9% is evident for the Albanians. The analysis reveals noticeable differences among the nationality groups under study. Albanian women experience the highest cohort fertility rates while Bulgarians have the lowest and native women are somewhere in between. Albanians born between 1950 and 1954 have on average 2.42 children compared to only 1.93 for Greek and to 1.64 for Bulgarian women; this ranking is maintained throughout all cohorts. Comparing women born in the early half of the 1950s to those born over 1955-59, a declining trend in fertility differentials can be observed among national groups. In fact, the fertility of the Albanians exceeds that of Greeks by 25%

for women born in the former period while the corresponding figure is 17.5% for those born in the latter. A similar decreasing trend can be observed when disparities in fertility levels between Albanian and Bulgarian women are considered – that difference is reduced from about 47% to 37%. By contrast, the difference between Greeks and Bulgarians is about 18% and remains fairly constant for both cohort groups. There is no doubt that the decline in fertility differentials over time is due to a rather sharp reduction in the fertility of Albanian women born in the 1950s as well as to changing strategies among the younger cohorts regarding entry to motherhood.

Figure 1. Percentages of childless women at age 35 by citizenship: birth cohorts 1950-1965
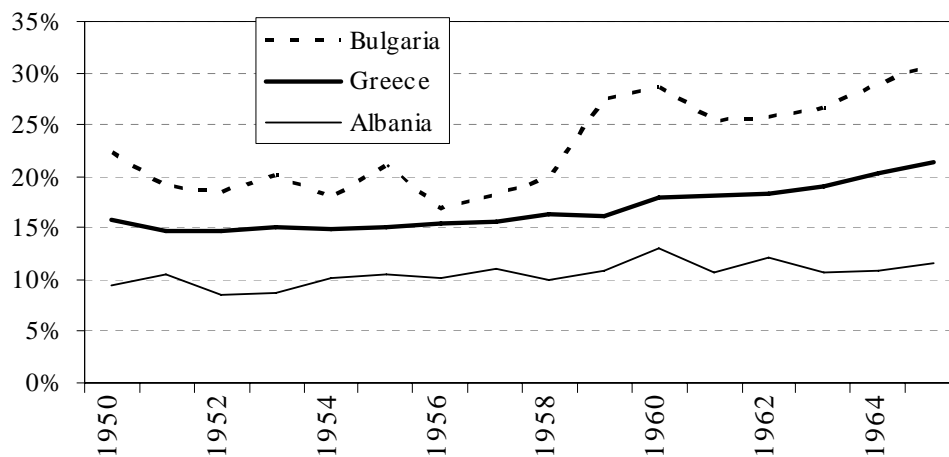
Source: Calculations based on the 2001 census of Greece

3.2 Childlessness and differences in first birth timing

Comparing proportions of women still childless at age 35 for the different ethnic groups it is evident that Albanian women exhibit the lowest percentage irrespectively of birth cohort while Bulgarian the highest (Figure 1). For instance, around 10 percent of Albanians born in the 1950s remain childless at age 35 compared to more than double that pro-

portion for Bulgarian women. The respective share for Greek women is around 16 percent.[2]

With respect to trends for each nationality the figures indicate an increasing tendency to remain childless for Bulgarian and Greek women born after 1955. The proportions are particularly high for women born in the first half of the 1960s; for instance, of the Bulgarian women born in 1965, nearly one out of three were still childless at age 35 whereas the respective figure for the Greek born women is more than one out of five. The wide fluctuations that can be observed for different cohorts of Bulgarian women are related to some extent to their small numbers. Proportions childless for Albanian women born between 1950 and 1965, on the other hand, are fairly constant while increases thereafter are moderate.

Bulgarian women clearly exhibit an earlier timing compared to both Greek and Albanian women in relation to entry to motherhood. In addition, the differentials seem to become more pronounced over time, since the gap between Greek and Bulgarian women regarding the mean age at first birth (Table 1) tends to increase (from 2.3 years on average for the 1950-54 cohort group to 2.7 years for that of 1960-64). As far as differences between Albanian and Bulgarian women are concerned, a rather similar pattern is observed, thought it is more substantial for the youngest birth cohorts.

These results reveal a rather unexpected relationship between early timing at first birth and cohort fertility. For instance, despite the fact that Bulgarian women have their first birth earlier than all other ethnic groups their proportions childless are the highest and their cohort fertility the lowest. Considering the levels of cohort fertility for these ethnic groups it seems that differentials in quantum dominate those in tempo.

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[2] Differentials for the ethnic groups are even more substantial if the proportions of childless women at age 45 are considered; the percentage for Bulgarian women born in 1950 is nearly double that for Greek women and nearly triple that for Albanian (21.6%, 12.5% and 7.5% respectively).

3.3 Cohort fertility by parity

Differences in fertility among nationalities reflect parity distribution differentials. These are examined only for women born in the 1950s as these women have reached at least age 40 in 2000 and a substantial proportion of them have completed their childbearing lives.

Table 2 shows proportions of women born between 1950 and 1959 (cohort groups 1950-54 and 1955-59) by numbers of children ever born and citizenship. Albanian women have the highest proportions of mothers with 3 and 4 or more children while Greeks exhibit the highest proportions with 2 children and Bulgarians show the highest proportions of women with only one child and of childless women. Those differentials are clearly reflected in the variations regarding the cohort fertility patterns of the ethnic groups already analysed.

Table 2. Percentages of women by number of children even born by citizenship: birth cohorts 1950-1959

	Cohorts 1950-54		
	Greek	Albanian	Bulgarian
Childless	11.7	7.5	18.6
1 child	14.0	9.9	18.7
2 children	52.2	38.7	47.8
3 children	16.6	29.1	11.0
4 or more children	5.4	14.9	3.9
	Cohorts 1955-59		
	Greek	Albanian	Bulgarian
Childless	12.4	8.3	19.3
1 child	14.7	9.9	20.4
2 children	52.4	47.1	45.3
3 children	15.3	25.8	11.1
4 or more children	5.1	9.0	3.9

Source: Calculations based on the 2001 census of Greece

The proportion of childless women is one of the elements associated with the differences in fertility levels observed

among the migrant groups under study. Of the 25% difference in total cohort fertility between Albanian and Greek women born in the early 1950s, 5% is related to the proportions of childlessness and the remaining 20% to the actual reproductive behaviour of the mothers. Similarly, of the 47% difference between Albanians and Bulgarians born in that same period, 17% is attributable to higher proportions of childless women among the Bulgarians and 30% to differentials in the reproductive behaviour of the mothers.

The figures presented in Table 2 are also informative as regards trends in fertility. The decline observed for Albanian women is mainly related to a reduction in the proportions having at least 3 children. In particular, comparing the cohorts born in the first and the second half of the 1950s, the proportions of women having 3 children decreased from 29.1% to 25.8% and the proportions of women with at least 4 children dropped from 14.9% to 9.0%. By contrast, the decrease in cohort fertility of Greek and Bulgarian women is much more limited; in the former case it is mainly related to a reduction in proportions having a third child while in the latter to a decline in the proportions having a second child.

4. Conclusion and discussion

In this study we have used data on childbearing derived from the 2001 census in order to examine fertility patterns and differentials between native, Albanian and Bulgarian immigrant women in Greece. Our analysis is based on demographic information which allows computation of cohort fertility measures for women born between 1950 and 1970.

The analysis shows significant differences in fertility levels among the nationalities themselves as a result of the diversities regarding the timing of entry to motherhood, the proportion of childlessness and the parity-specific childbearing. For women who have nearly completed their reproductive life, cohort fertility is highest among Albanians (2.42 children per woman) and lowest among Bulgarians (1.64) while levels for native women are somewhere in between

(1.93). Nevertheless, the gap observed among the ethnic groups tends, broadly, to narrow over successive cohorts since fertility is declining over time for all nationalities at a varying pace. Our findings also reveal a rather unexpected relationship between early childbearing and fertility quantum. This is particularly evident in the case of Bulgarian women who in spite of their early entry to motherhood they experience the lowest cohort fertility.

Fertility is a multi-facet phenomenon and the existing statistical material in Greece can hardly explain the differentials observed among the native and the immigrant populations under study; however, some plausible interpretations can be given, based upon relevant information extracted from other sources and the experience of countries with long immigration history.

Albanian immigrants originate from a high fertility regime, reinforced by religious and traditional patriarchal family values in an agrarian society. Cohort fertility of women born in the early 1950s was estimated at about 3.6 children per woman (Falkingham and Gjonca, 2001; Aasve et al. 2006). Thus, fertility of Albanian immigrants in Greece is expected to be at a higher level than of native women, particularly as a high proportion of them arrived at the host country only recently.

On the other hand, according to estimates published by Eurostat (2005), fertility for Bulgarians born in the 1950s was at about replacement level (around 2.1 children per woman) but decreased thereafter; in fact, levels were very similar to Greek fertility. Period measures also indicate that women living in Bulgaria have their children earlier than their counterparts in Central, Western and Southern Europe (Billari, 2005); early fertility schedule is a characteristic that can be observed among Bulgarian immigrants in Greece, as well.

It is worth noting that, cohort fertility based on the 2001 population census indicates that levels among immigrants are lower than in their countries of origin. That would be in accordance both with the selectivity hypothesis - that migrants are a distinct group of persons whose aspirations,

adaptability, socio-economic status and fertility preferences distinguishes them from the majority of the population in their country of origin (Khahn, 1988; Abbasi-Shavazi and McDonald, 2002) – and the disruption hypothesis - that migration itself disrupts family life and reproductive behaviour, resulting in reduced fertility immediately before and following immigration (Dinkel and Lebok, 1997; Ng and Nault, 1997). As detailed data on the characteristics of migrants before and after the move or timing of migration in Greece are lacking, it is not possible to draw any indisputable conclusions as to which factor mostly affects fertility in this case.

Given that immigration is a rather recent phenomenon for Greece, cohort fertility of the migrant populations examined here mainly results from their reproductive behaviour before immigrating. The combination of census data with detailed vital registration statistics by citizenship, once they become available, will give us the opportunity to assess the impact of migration on the reproductive behaviour of migrants and its effects on the overall fertility in Greece.

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